Section 6
Land-Use Planning Component

6.0 Overview

This chapter discusses Order No. 2001-01 requirements that apply to the Land-Use Planning Component (areas and activities) of the Jurisdictional Urban Runoff Management Plan (JURMP) and actions proposed by the City of Carlsbad (City). This section meets or exceeds minimum requirements as specified in Section H of the Order No. 2001-01.

- Assessment of General Plan (Section 6.1)
- Modification Development Project Approval Process (Section 6.2)
- Revisions to Environmental Review Process (Section 6.3)
- Education on New Development and Redevelopment (Section 6.4)

Subsections 6.1 through 6.4 uses a table format to briefly summarize the purpose of the Subsection, quote the applicable regulatory requirements from Section F and H of the Permit (written in *italics*), and list the City's action(s) to meet the regulatory requirements. The remainder of the Subsection outlines each action plan and describes the specific actions completed, in progress, or projected to meet or exceed that Permit requirement.

Where appropriate, the City proposes a performance goal as a percentage to be completed within a Permit year or the five-year Permit term. Performance goals are used to assess the completeness of a JURMP Component and assess the effectiveness of implementing the action plans.

The types of information collected for use in preparing the Annual Report and Assessment/ Evaluation of the JURMP is outlined in Section 11 of this JURMP, Assessment of Jurisdictional URMP Effectiveness Component.

6.1 Assessment of General Plan

6.1.1 Purpose and Permit Requirements

Purpose

The purpose of this section is to describe the NPDES Permit Order No. 2001-01 requirements under the Land-Use Planning for New Development and Redevelopment Component for Assessment of the General Plan. To provide an assessment of the General Plan and a workplan with a time schedule detailing changes to the General Plan regarding water quality and watershed protection.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Assessment of General Plan is as follows:

Section F.1.a

Each Copermittee's General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) shall include water quality and watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures for development projects. As part of its Jurisdictional Urban Runoff Management Program document, each Copermittee shall provide a workplan with time schedule detailing any changes to its General Plan regarding water quality and watershed protection. Examples of water quality and watershed protection principles and policies to be considered include the following:

(1) Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.

(2) Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.

(3) Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.

(4) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.

(5) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural BMPs to mitigate the projected increases in pollutant loads and flows.

(6) Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.

(7) Reduce pollutants associated with vehicles and increasing traffic

resulting from development. Coordinate local traffic management reduction efforts with the San Diego County Congestion Management Plan.

(8) Implement the San Diego Association of Government's (SANDAG's) recommendations as found in the Water Quality Element of its Regional Growth Management Strategy.

(9) Post-development runoff from a site shall not contain pollutant loads which cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable.

Jurisdictional URMP Requirements

The Order No. 2001-01 requirement under Land-Use Planning for New Development and Redevelopment Component for Assessment of General Plan is as follows:

Section H.1.a.(11)(a)
Workplan for inclusion in General Plan (or equivalent plan) of water quality and watershed protection principles and policies

City Action Plan

1. Assess the General Plan for inclusion of Land-Use Planning for new development and redevelopment projects.

6.1.2 Assessment of General Plan Actions

<u>Action #1</u> - Assess the General Plan for inclusion of Land-Use Planning for new development and redevelopment projects.

Land-use planning in the City of Carlsbad gives local leaders an opportunity to establish and enforce policies to guide community development. The City is developing a vision, goals and policies that balance economic development with resource protection for a healthy coast.

Land-use plans play a key role in coastal development by laying out a vision for local growth. The City requires the building of a project to be consistent with the local land-use plan. Currently, the City is revising the General Plan, Zoning Ordinance and Local Coastal Program (LCP) to address water quality and watershed protection. The work schedule is as follows:

- Environmental Review – Exempt per Section 15308 – Actions by Regulatory Agencies for Protection of the Environment
- LCPA Notice – 6 weeks – November 20, 2001 – January 2, 2002
- Planning Commission – January 2, 2002
- City Council – February 5, 2002
- Submit to Coastal Commission – March 26, 2002

On January 2, 2002 the Planning Commission considered General Plan Amendment GPA 01-15, Zone Code Amendment ZCA 01-08, and Local Coastal Program Amendment LCPA 01-15. The Commission recommended approval by the City Council.

Water quality and watershed protection provisions in the revised General Plan, Zoning Ordinance and Local Coastal Program include *(Note: ZC refers to Zoning Code, Chapter 21.203.040(B)(4)(Residential Development) and GP refers to General Plan, Open Space and Conservation Element, Water Quality Protection unless noted otherwise.):*

1) Minimize the amount of impervious surfaces and directly connected impervious surfaces, and slow runoff and maximize on-site infiltration of runoff where feasible. See the following documents:
   - ZC i, ii, iii
   - GP C.22(5)
   - GP C.22(6)

2) Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment. Use small collection strategies located at, or near, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4). See the following documents:
   - GP C.4

3) Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands and buffer zones. Encourage land acquisition of such areas. See the following documents:
   - GP C.22(3)
   - GP C.22(4)

4) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways and bridges. See the following document:

   - GP C.22(9)

5) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. The City shall require developments to incorporate structural and non-structural best management practices (BMP's) to mitigate projected increases in pollutant loads and flows. See the following document:

   - GP C.3

6) Identify areas that are particularly susceptible to erosion and sediment loss and establish development guidance to protect these areas from erosion and sediment loss. See the following document:

   - ZC 21.203.040(B)(4)(All Development)(C)

7) Design streets and circulation systems to reduce pollutants associated with vehicles and traffic resulting from development. Work with the adjacent communities and agencies of Oceanside, Vista, Encinitas, San Marcos, County of San Diego, California Department of Transportation (Caltrans), North County Transit District, San Diego Association of Governments (SANDAG) and other appropriate agencies to coordinate local traffic management reduction efforts. See the following document:

   - GP C.22(10)

8) Developments shall implement appropriate recommendations to protect water quality found in SANDAG's Water Quality Element of its Regional Growth Management Strategy. See the following document:

   - GP C.6

9) Post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable. See the following document:

   - GP C.5

The existing City of Carlsbad General Plan and Coastal Plan should be updated and approved by City Council on February 19, 2001. In order to reduce impacts of new development and redevelopment on storm water quality, the City will incorporate water quality and watershed protection policies into revised Water Quality/Watershed Protection.

6.2 Modification Development Project Approval Process

6.2.1 Purpose and Permit Requirements

Purpose

The purpose of this section is to describe the NPDES Permit Order No. 2001-01 requirements under the Land-Use Planning for New Development and Redevelopment Component and to describe modifications of the Development Project Approval Process.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Modification Development Project Approval Process is as follows:

Section F.1.b

Prior to project approval and issuance of local permits, Copermittees shall require each proposed project to implement measures to ensure that pollutants and runoff from the development will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of receiving water quality objectives. Each Copermittee shall further ensure that all development will be in compliance with Copermittee storm water ordinances, local permits, all other applicable ordinances and requirements, and this Order.

(1) Development Project Requirements
Each Copermittee shall include development project requirements in local permits to ensure that pollutant discharges and runoff flows from development are reduced to the maximum extent practicable and that receiving water quality objectives are not violated throughout the life of the project. Such requirements shall, at a minimum:

- *(a) Require project proponent to implement source control BMPs for all applicable development projects.*
- *(b) Require project proponent to implement site design/landscape characteristics where feasible which maximize infiltration, provide retention, slow runoff, and minimize impervious land coverage for all development projects.*
- *(c) Require project proponent to implement buffer zones for natural water bodies, where feasible. Where buffer zone implementation is infeasible, require project proponent to implement other buffers such as trees, lighting restrictions, access restrictions, etc.*
- *(d) Require industrial applicants subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction), (hereinafter General Industrial Permit), to provide evidence of coverage under the General Industrial Permit.*
- *(e) Require project proponent to ensure its grading or other construction activities meet the provisions specified in Section F.2. of this Order.*
- *(f) Require project proponent to provide proof of a mechanism that will ensure ongoing long-term maintenance of all structural post-construction BMPs.*

(2) Standard Urban Storm Water Mitigation Plan (SUSMPs)
Within 365 days of adoption of this Order, the Copermittees shall collectively develop a model Standard Urban Storm Water Mitigation Plan (SUSMP) to reduce pollutants and runoff flows from all new development and significant redevelopment projects falling under the priority project categories or locations listed in section F.1.b.(2)(a) below meet SUSMP requirements. The SUSMP requirements shall apply to all priority projects or phases of priority projects which have not yet begun grading or construction activities. If a Copermittee determines that lawful prior approval of a project exists, whereby application of SUSMP requirements to the project is infeasible, SUMP requirements need not apply to the project. Where feasible, the Copermittees shall utilize the 18-month SUSMP implementation period to ensure that projects undergoing approval processes include application of SUSMP requirements in their plans.

(a) Priority Development Project Categories - SUSMP requirements shall apply to all new development and significant redevelopment projects falling under the priority project categories or locations listed below. Significant redevelopment is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where significant redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in section F.1.b.(2)(c) applies only to the addition, and not to the entire development.

i. Home subdivisions of 100 housing units or more. This category includes single-family homes, multi-family homes, condominiums, and apartments.

ii. Home subdivisions of 10-99 housing units. This category includes single-family homes, multi-family homes, condominiums, and apartments.

iii. Commercial developments greater than 100,000 square feet. This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships;

commercial airfields; and other light industrial facilities.

iv. *Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.*

v. *Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet.*

vi. *All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.*

vii. *Environmentally Sensitive Areas: All development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. Environmentally sensitive areas include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); areas designated as preserves or their equivalent under the Multi Species Conservation Program within the Cities and County of San Diego; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees. "Directly adjacent" means situated within 200 feet of the environmentally sensitive area. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.*

viii. *Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.*

ix. Streets, roads, highways, and freeways. This category includes any paved surface which is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

x. Retail Gasoline Outlets. Retail Gasoline Outlet is defined as any facility engaged in selling gasoline.

(b) BMP Requirements – The SUSMP shall include a list of recommended source control and structural treatment BMPs. The SUSMP shall require all new development and significant redevelopment projects falling under the above priority project categories or locations to implement a combination of BMPs selected from the recommended BMP list, including at a minimum (1) source control BMPs and (2) structural treatment for BMPs. The BMPs shall, at a minimum:

i. Control the post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion, and to protect stream habitat;

ii. Conserve natural areas where feasible;

iii. Minimize storm water pollutants of concern in urban runoff from the new development or significant redevelopment (through implementation of source control BMPs). Identification of pollutants of concern should include at a minimum consideration of any pollutants for which water bodies receiving the development's runoff are listed as impaired under Clean Water Act section 303(d), any pollutant associated with the land use type of the development, and any pollutant commonly associated with urban runoff;

iv. Remove pollutants of concern from urban runoff (through implementation of structural treatment BMPs);

v. Minimize directly connected impervious areas where feasible;

vi. Protect slopes and channels from eroding;

vii. Include storm drain stenciling and signage;

viii. Include properly designed outdoor material storage areas;

ix. Include properly designed trash storage areas;

x. Include proof of a mechanism, to be provided by the project proponent or Copermittee, which will ensure ongoing long-term structural BMP maintenance;

xi. Include additional water quality provisions applicable to individual priority project categories;

xii. Be correctly designed so as to remove pollutants to the maximum extent practicable;

xiii. Be implemented close to pollutant sources, when feasible, and prior to discharging into receiving waters supporting beneficial uses; and

xiv. Ensure that post-development runoff does not contain pollutant loads which cause or contribute to an exceedance

of water quality objectives of which have not been reduced to the maximum extent practicable.

(c) *Numeric Sizing Criteria – The SUSMP shall require structural treatment BMPs to be implemented for all priority development projects. All structural treatment BMPs shall be located so as to infiltrate, filter, or treat the required runoff volume or flow prior to its discharge to any receiving waterbody supporting beneficial uses. Structural treatment BMPs may be shared by multiple new development projects as long as construction of any shared structural treatment BMPs is completed prior to the use of any new development project from which the structural treatment BMP will receive runoff.*

In addition to meeting the BMP requirements listed in item F.1.b.(2)(b) above, all structural treatment BMPs for a single priority development project shall collectively be sized to comply with the following numeric sizing criteria:

Volume

Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

i. *The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (0.6 inch approximate average for the San Diego County area); or*
ii. *The volume of runoff produced by the 8th percentile 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or*
iii. *The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial, 1993); or*
iv. *The volume of runoff, as determined from the local historian rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event;*

OR

Flow

Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

i. *The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or*
ii. *The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or*

iii. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

(d) Equivalent Numeric Sizing Criteria – The Copermittees may develop, as part of the model SUSMP, any equivalent method for calculating the volume or flow which must be mitigated (i.e., any equivalent method for calculating numeric sizing criteria) by post-construction structural treatment BMPs. Such equivalent sizing criteria may be authorized by the SDRWQCB for use in place of the above criteria. In the absence of development and subsequent authorization of such equivalent numeric sizing criteria, the above numeric sizing criteria requirement shall be implemented.

(e) Pollutants or Conditions of Concern – As part of the model SUSMP, the Copermittees shall develop a procedure for pollutants or conditions of concern to be identified for each new development or significant redevelopment project. The procedure shall include, at a minimum, consideration of (1) receiving water quality (including pollutants for which receiving waters are listed as impaired under Clean Water Act section 303(d)); (2) land use type of the development project and pollutants associated with that land use type; (3) pollutants expected to be present on site; (4) changes in storm water discharge flow rates, velocities, durations, and volumes resulting from the development project; and (5) sensitivity of receiving waters to changes in storm water discharge flow rates, velocities, durations, and volumes.

(f) Implementation Process – As part of the model SUSMP, the Copermittee shall develop a process by which SUSMP requirements will be implemented. The process shall identify at what point in the planning process development projects will be required to meet SUSMP requirements. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the SUSMP requirements, as well as any other measures necessary for implementation of SUSMP requirements.

(g) Restaurants Less than 5,000 Square Feet – New development and significant redevelopment restaurant projects where the land area development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement F.1.b.(2)(c) and peak flow rate requirement F.1.b(2)(b)(i). A restaurant is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812).

(h) Waiver Provision – A Copermittee may provide for a project to be waived from the requirement of implementing structural treatment

BMPs (F.1.b.(2)(c)) if infeasibility can be established. A waiver of infeasibility shall only be granted by a Copermittee when all available structural treatment BMPs have been considered and rejected as infeasible. Copermittees shall notify the SDRWQCB within 5 days of each waiver issued and shall include the name of the person granting each waiver.

As part of the model SUSMP, the Copermittees may develop a program to require project proponents who have received waivers to transfer the savings in cost, as determined by the Copermittee(s), to a storm water mitigation fund. This program may be implemented by all Copermittees which choose to provide waivers. Funds may be used on projects to improve urban runoff quality within the watershed of the waived project. The waiver program may identify:

i. The entity or entities that will manage the storm water mitigation fund (i.e., assume full responsibility for)
ii. The range and types of acceptable projects for which mitigation funds may be expended;
iii. The entity or entities that will assume full responsibility for each mitigation project including its successful completion
iv. How the dollar amount of fund contributions will be determined.

(i) Infiltration and Groundwater Protection – To protect groundwater quality, each Copermittee shall apply restrictions to the use of structural treatment BMPs which are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins). Such restrictions shall ensure that the use of such infiltration structural treatment BMPs shall not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, use of structural treatment BMPs which are designed to primarily function as infiltration devices shall meet the following conditions:

i. Urban runoff shall undergo pretreatment such as sedimentation or filtration prior to infiltration.
ii. All dry weather flows shall be diverted from infiltration devices.
iii. Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration structural treatment BMPs are to be used.
iv. Infiltration structural treatment BMPs shall be adequately maintained so that they remove pollutants to the maximum extent practicable.
v. The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least 10 feet. Where groundwater basins to not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.

vi. The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses.

vii. Infiltration structural treatment BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Copermittee.

viii. Infiltration structural BMPs shall be located a minimum of 100 feet horizontally from any water supply wells.

As part of the model and local SUSMPs, the Copermittees may develop alternative restrictions on the use of structural treatment BMPs which are designed to primarily function as infiltration devices.

(j) Downstream Erosion – As part of the model SUSMP and the local SUSMPs, the Copermittees shall develop criteria to ensure that discharges from new development and significant redevelopment maintain or reduce pre-development downstream erosion and protect stream habitat. At a minimum, criteria shall be developed to control peak storm water discharge rates and velocities in order to maintain or reduce pre-development downstream erosion and protect stream habitat. Storm water discharge volumes and durations should also be considered.

Jurisdictional URMP Requirements

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Modification Development Project Approval Process is as follows:

Section H.1.a.(11)(b)
Development project requirements in local development permits

Section H.1.a.(11)(c)
Participation efforts conducted in the development of the Model SUSMP

City Action Plan

1) Develop project requirements for inclusion into local (public and private) development permits.

2) Participate in the development of the Model SUSMP.

6.2.2 Modification Development Project Approval Process Actions

<u>Action #1</u> - Develop project requirements for inclusion into local (public and private) development permits.

Prior to project approval and issuance of local permits, The City will require each proposed project to implement measures to prevent and reduce pollutants and runoff from the development, to the maximum extent practicable, from impacting receiving water quality objectives. The City will review proposed projects, including City projects to ensure that all development will be in compliance with the City's storm water ordinances, local permits, all other applicable ordinances and requirements, and the Order No. 2001-01.

The City is including a questionnaire in the project application package to determine whether each proposed project is subject to construction and/or post-construction storm water BMP requirements. This questionnaire will be completed and signed by the project proponent and included in the project submittal prior to deeming the project submittal complete.

The City is implementing changes to ordinances and policies to insure that each proposed development project:

- Implements measures to ensure that pollutants and runoff from the development will be reduced to the maximum extent practicable.
- Will not cause or contribute to an exceedance of receiving water quality objectives.
- Complies with the City storm water ordinances, City permits, all other applicable ordinances and requirements, and the San Diego Regional Water Quality Control Board Order No. 2001-01.

Revisions to the Development Project Approval Process already implemented include:

- Submittal of a preliminary SWPPP is required during discretionary review.
- During review of development projects submitted for Preliminary Review, water quality is raised as a standard issue that must be addressed by the project when an application is filed.
- The addition of a standard Engineering Condition requiring compliance with Order No. 2001-01.

<u>Development Project Requirements</u>

(a) A standard Engineering Condition is being placed on all applicable development projects that require the project proponents to implement source control BMPs.

(b) The Planning Department, through an amendment to the General Plan (GPA 01-15), requires development projects to implement site design/landscape characteristics, where feasible, which maximize infiltration, provide retention, slow runoff, and minimize impervious land coverage.

(c) The Planning Department requires new development projects to implement buffer zones for natural water bodies, where feasible. Where buffer zone implementation is not feasible, the project proponent is required to implement other buffers such as trees, lighting restrictions, access restrictions, etc.

(d) Industrial projects subject to California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction), (hereinafter General Industrial Permit), are required to provide evidence of coverage under the General Industrial Permit.

(e) A standard Engineering Condition is placed on all applicable projects that requires grading or other construction activities to meet the provisions specified in Section F.2. of the Order No. 2001-01 through compliance with the revised City of Carlsbad grading ordinance.

(f) Development projects are required to address maintenance of all structural post-construction BMPs. The City reviews preliminary and final SWPPPs to ensure that the ongoing long-term maintenance is adequately covered.

The City will include requirements (a) through (f) in their storm water ordinance update. The City of Los Angeles Reference Guide for Stormwater Management Practices, July 2000 (http://www.lacity.org/san/swmd/) will be used in determining appropriate storm water BMPs for projects as well as other municipal guidance.

Examples of site design, source control and treatment BMPs are presented below. These BMPs may be used to minimize the introduction of pollutants that may result in impacts to the quality of receiving waters. With the adoption of the City's Standard Urban Storm Water Mitigation Plan (SUSMP), specific priority projects will be required to implement one or a combination of storm water BMPs.

Priority Development Projects

The City will be generating a local SUSMP that covers Priority Development Projects, BMPs, and integration of the requirements into projects. A brief summary of the SUSMP requirements is provided below.

SUSMP requirements apply to all new development and significant redevelopment projects as designated by the City of Carlsbad. New development consists of the following project types:

1. Home subdivisions of 100 housing units or more (inclusive of single-family, multi-family, condominiums, and apartment dwellings).
2. Home subdivisions of 10-99 housing units or more (inclusive of single-family, multi-family, condominiums, and apartment dwellings).
3. Commercial developments greater than 100,000 square feet (for private development not designated as heavy industrial or residential).
4. Automotive repair shops (SIC - 5013; 5014; 5541; 7532-7534; or 7536-7539)
5. Restaurants greater than 5,000 square feet (SIC - 5812).
6. Hillside development great than 5,000 square feet of impervious surface with grades or slopes of twenty-five percent or greater.
7. Environmentally Sensitive Areas (ESAs) located within or directly adjacent or directly discharging to the ESA with impervious surface of 2,500 square feet or increases current impervious area by ten percent or more.
8. Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff (personal, business, or commerce).

9. Street, roads, highways, and freeways with 5,000 square feet or greater of paved surface used for transportation.

Additionally, SUSMP requirements are applied to major redevelopment projects. These are defined as the creation or addition of 5,000 square feet or more of impervious surface unless the increase is less than fifty percent of the existing impervious surface and the existing development project was not subject to SUSMP requirements. For the latter project type, the numeric sizing criteria (Section F.1.b.(2)c applies to the addition only. The following project types are considered significant redevelopment:

- Expansion,
- Replacement,
- Structural development (increase in gross floor area and/or exterior construction), and
- Remodeling

Site Design BMPs

First and foremost is the minimization of impervious areas with increased infiltration in those pervious areas. The following are approaches the City will consider to minimize imperviousness and increase infiltration.

- Reduce sidewalk widths and incorporate landscaped buffers between sidewalks and streets.
- Design residential streets for the minimum required pavement widths
- Minimize the number of residential cul-de-sacs and incorporate landscaped areas to reduce impervious cover.
- Use open space development that incorporates smaller lot sizes
- Increase building density while decreasing the building footprint
- Reduce overall lot imperviousness by promoting alternative driveway surfaces and shared driveways that connect two or more homes together
- Reduce overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in spillover parking areas

Increase Rainfall Infiltration

- Use permeable materials for private sidewalks, driveways, parking lots, and interior roadway surfaces (examples: hybrid lots, parking groves, permeable overflow parking, etc.)
- Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas, and avoid routing rooftop runoff to the roadway or the urban runoff conveyance system

Maximize Rainfall Interception

- Maximizing canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.

Minimize Directly Connected Impervious Areas (DCIAs)

- Draining rooftops into adjacent landscaping prior to discharging to the storm drain.
- Draining parking lots into landscape areas co-designed as biofiltration areas.
- Draining roads, sidewalks, and impervious trails into adjacent landscaping.

Slope and Channel Protection

- Use of natural drainage systems to the maximum extent practicable.
- Stabilized permanent channel crossings.
- Planting native or drought tolerant vegetation on slopes.
- Energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits. or channels that enter unlined channels.

Maximize Rainfall Interception

- Cisterns
- Foundation planting

Increase Rainfall Infiltration

- Dry wells

Source Control BMPs

Source Control BMPs are specifically designed to prevent pollutants from entering the storm water drainage system. The City will consider Source Control BMPs for new and significant redevelopment projects. A few examples are listed below.

- Storm drain system stenciling and signage
- Outdoor material and trash storage area designed to reduce or control rainfall runoff
- Efficient irrigation system

Treatment Control BMPs

Treatment Control BMPs are specifically designed to "treat" by reducing the amount of pollutants entering the storm drainage system. Each Treatment Control BMP is efficient for a particular type of pollutant and requires a calculated amount of space to attain that efficiency. The City will consider Treatment Control BMPs for new and significant redevelopment projects. A few examples are listed below.

Biofilters

- Grass swale
- Grass strip
- Wetland vegetation swale
- Bioretention

Detention Basins

- Extended/dry detention basin with grass lining
- Extended/dry detention basin with impervious lining
- Catch basin screens

Infiltration Basins

- Infiltration basin
- Infiltration trench
- Porous asphalt
- Porous concrete
- Porous modular concrete block

Wet Ponds and Wetlands

- Wet pond (permanent pool)
- Constructed wetland

Drainage Inserts

- Oil/Water separator
- Catch basin insert
- Storm drain inserts

Filtration Systems

- Media filtration
- Sand filtration

Continuous Flow Deflection/ Separation Systems

- Swirl Concentrator

Action #2 - Participate in the development of the Model SUSMP.

The City, in cooperation with the other Copermittees (other jurisdictions subject to the San Diego Regional Water Quality Control Board's Order 2001-01, commonly referred to as the San Diego Municipal Storm Water Permit, or Municipal Permit) under the San Diego Municipal Permit, developed and adopted a Model SUSMP for the entire region.

Once the Model is reviewed and approved, a local SUSMP will be generated by the City. A local SUSMP identifies specific post-construction site design, source control and treatment control storm water BMPs that must be implemented on certain larger development projects, called "Priority Projects". The City of Carlsbad will be developing a jurisdictional, or local SUSMP, that complies with the requirements of the Model SUSMP. The local SUSMP will be

implemented within six months of the Regional Board's adoption of the Model SUSMP. Any additional changes to the City's development regulations, brochures or guidelines will be revised to incorporate the local SUSMP prior to this implementation deadline. The Principal Copermittee will submit the Model SUSMP to the Regional Board on February 21, 2002.

The City has attached the Model SUSMP as Appendix D. The goal of the Model SUSMP is to reduce pollutants and runoff flows from all new development projects and significant redevelopment projects falling under the priority project categories or locations listed above.

6.3 Revisions to Environmental Review Process

6.3.1 Purpose and Permit Requirements

Purpose

The purpose of this section is to describe the NPDES Permit Order No. 2001-01 requirements under the Revisions to Environmental Review Process.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Revisions to Environmental Review Process is as follows:

Section F.1.c

(1) To the extent feasible, the Copermittees shall revise their current environmental review processes to include requirements for evaluation of water quality effects and identification of appropriate mitigation measures. The following questions are examples to be considered in addressing increased pollutants and flows from proposed projects:

- *(a) Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).*
- *(b) Could the proposed project result in significant alteration of receiving water quality during or following construction?*
- *(c) Could the proposed project result in increased impervious surfaces and associated increased runoff?*
- *(d) Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?*
- *(e) Could the proposed project result in increased erosion downstream?*
- *(f) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list. If so, can it result in an increase in any pollutant for which the water body is already impaired?*
- *(g) Is project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?*
- *(h) Could the proposed project have a potentially significant environmental impact on surface water quality, to either marine, fresh, or wetland waters?*
- *(i) Could the proposed project have a potentially significant adverse impact on ground water quality?*
- *(j) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?*
- *(k) Can the project impact aquatic, wetland, or riparian habitat?*

Jurisdictional URMP Requirements

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Revisions to Environmental Review Process is as follows:

Section H.1.a.(11)(d)
Environmental review processes revisions

City Action Plan

1) The City's Environmental Checklist Form and Environmental Information Form have been updated under the California Environmental Quality Act (CEQA) to incorporate additional focused questions to be considered by Community Development staff during the Initial Study process under CEQA.

6.3.2 Revisions to Environmental Review Process Actions

<u>Action #1</u> - The City's Environmental Checklist Form and Environmental Information Form have been updated under the California Environmental Quality Act (CEQA) to incorporate additional focused questions to be considered by Community Development staff during the Initial Study process under CEQA.

The City of Carlsbad reviews the following environmental factors for CEQA. If checked, the factor would be potentially affected by the project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist.

❑	Aesthetics	❑	Agriculture Resources	❑	Air Quality
❑	Biological Resources	❑	Cultural Resources	❑	Geology /Soils
❑	Hazards & Hazardous Materials	❑	Hydrology / Water Quality	❑	Land Use / Planning
❑	Mineral Resources	❑	Noise	❑	Population / Housing
❑	Public Services	❑	Recreation	❑	Transportation/Traffic
❑	Utilities / Service Systems	❑	Mandatory Findings of Significance		

A CEQA Determination is completed by the Lead Agency on the basis of the initial evaluation as follows:

❑	I find that the proposed project COULD NOT have a significant effect on the environment, and a NOTICE OF EXEMPTION will be prepared.
❑	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
❑	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
❑	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
❑	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

❑	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

XXXXXXXXXXXXXXXXX, City Planner

Although the entire list of environmental factors are reviewed for CEQA, only the Hydrologic and Water Quality Issues Checklist is provided on the following pages. These questions address the impacts from storm water. The City of Carlsbad has updated their environmental review process to conform to Order 2001-01, see Appendix XX for Environmental Impact Assessment Form – Part II. The section on Hydrology and Water Quality shown below indicates the *changes in italics*.

VIII. HYDROLOGY AND WATER QUALITY - Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements? (#1:Pgs 5.2-1 - 5.2-11)	☐	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (i.e. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☐
c) Impacts to groundwater quality?	☐	☐	☐	☐

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☐
e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the *flow* rate or amount **(***volume*) of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☐
f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☐
g) Otherwise substantially degrade water quality?	☐	☐	☐	☐
h) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map?	☐	☐	☐	☐
i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (#1:Pgs 5.2-1 - 5.2-11)	☐	☐	☐	☐
j) Expose people or structures to a significant risk of loss injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☐
k) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐
l) Increased erosion (sediment) into *receiving* surface waters.	☐	☐	☐	☐

m) Increased pollutant discharges *(e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, nutrients, oxygen-demanding substances and trash)* into *receiving* surface waters or other alteration of *receiving* surface water quality (e.g. temperature, dissolved oxygen or turbidity)? (#1:Pgs 5.2-1 - 5..2-11)	☐	☐	☐	☐
n) Changes to receiving water quality (marine, fresh or wetland waters) during or following construction?	☐	☐	☐	☐
o) Increase in any pollutant to an already impaired water body as listed on the Clean Water Act Section 303(d) list?	☐	☐	☐	☐
p) Could the proposed project result in increase impervious surfaces and associated increased runoff?	☐	☐	☐	☐
q) Can the project impact aquatic, wetland, or riparian habitat?	☐	☐	☐	☐
r) The exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?	☐	☐	☐	☐

The Checklist indicates additional evaluation of the Environmental Impacts as required below:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially

Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significant criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure required, if any, to reduce the impact to less than significance.

6.4 Education on New Development and Redevelopment

6.4.1 Purpose and Permit Requirements

Purpose

The purpose of this Order No. 2001-01 requirement is to educate municipal staff, project applicants, developers, contractors, property owners, and community planning groups on the new requirements for development and redevelopment.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Order No. 2001-01 requirement under the Land-Use Planning for New Development and Redevelopment Component for Education on New Development and Redevelopment is as follows:

Section F.1.d

(1) Internal: Municipal Staff and Others
Each Copermittee shall implement an education program to ensure that its planning and development review staffs (and Planning Boards and Elected Officials, if applicable) have an understanding of:
- *(a) Federal, state, and local water quality laws and regulations applicable to development projects;*
- *(b) The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and*
- *(c) How impacts to receiving water quality resulting from development can be minimized (i.e., through implementation of various source control and structural BMPs).*

(2) External: Project Applicants, Developers, Contractors, Property Owners, Community Planning Groups
As early in the planning and development process as possible, each Copermittee shall implement a program to educate project applicants, developers, contractors, property owners, and community planning groups on the following topics:
- *(a) Federal, state, and local water quality laws and regulations applicable to development projects;*
- *(b) Required federal, state, and local permits pertaining to water quality;*
- *(c) Water quality impacts of urbanization; and*
- *(d) Methods for minimizing the impacts of development on receiving water quality.*

Jurisdictional URMP Requirements

The Order No. 2001-01 requirement under Land-Use Planning for New Development and Redevelopment Component for Education on New Development and Redevelopment is as follows:

Section H.1.a.(11)(e)
A description of the planning education program and how it will be implemented

City Action Plan

1) Implement a planning education program for Municipal staff that support Planning and Land Use.

2) Implement a planning education program for developers, contractors, property owners, and community planning groups.

6.4.2 Education on New Development and Redevelopment Actions

<u>Action #1</u> - Implement a planning education program for Municipal staff that support Planning and Land Use.

Internal Municipal staff that support Planning and Land Use include: City Staff, Planning Commission, and City Council members. The City will hold training for the Planning Department and the Development Services Division of the Engineering Department. The training will include background information, a review of changes to City forms, an overview of the City JURMP and SUSMP, and a review of actual projects. Workshops for the Planning Commission and City Council will be held that focus on the major policy issues and impacts of land use decisions. Following the training, staff and the boards will have an understanding of:

(a) Federal, State, and local water quality laws and regulations applicable to development projects;
(b) The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and
(c) How to minimize impacts to receiving water quality resulting from development (i.e., through implementation of various source control and structural BMPs).

Internal training already completed by the City of Carlsbad include:

- Standing NPDES (water quality issues) agenda item in the Public Works/Engineering/Development Services weekly staff meeting and Public Works/Engineering/Construction Management and Inspections bi-weekly staff meeting. Issues discuss include new BMPs available, field reports of what's working, ongoing regulatory aspects, standard NPDES conditions for projects, review of preliminary SWPPPs.
- Individual attendance of selected City staff to seminars including American Society of Civil Engineers (ASCE) Seminars: Municipal Storm Water Management, Practical BMP Design, and Watershed Management BMPs.
- Presentation of NPDES Program update to Planning Commission.
- Presentation of NPDES Program update to City Council.

The frequency of training will take into account the complexity of the operations. Municipal employees will be trained upon initial employment and annually thereafter. Training schedules and key topics planned by the City for municipal employees will encompass permit requirements and City Ordinances.

<u>Action #2</u> - Implement a planning education program for developers, contractors, property owners, and community planning groups.

The City will prepare handouts and sponsor public workshops to educate project applicants, developers, contractors, and property owners on the following topics:

(a) Federal, State, and local water quality laws and regulations applicable to development projects;
(b) Required Federal, State, and local permits pertaining to water quality;
(c) Water quality impacts of urbanization; and
(d) Methods for minimizing the impacts of development on receiving water quality.

The workshops will include a video presentation of background information review of the City SUSMP, and distribution of related outreach materials. Detailed mini-workshops for the more technical aspects of selecting and sizing BMPs may be scheduled for consultants. Handouts will also be available at the Planning Department counter.